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| 09/544,253  | 04/05/2000  | Gopal Parupudi       | MSI-505US           | 7033             |
| 22801   | 7590        | 10/20/2005           | EXAMINER            |                  |
| LEE & HAYES PLLC<br>421 W RIVERSIDE AVENUE SUITE 500<br>SPOKANE, WA 99201 |             |                      | LY, ANH             |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2162                |                  |

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/544,253

Applicant(s)

PARUPUDI ET AL.

Examiner

Anh Ly

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/31/05&amp;6/13/05</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is response to Applicants' Response filed on 07/22/2005.
2. Claims 1-8 and 10-64 are pending in this application.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
5. Claims 1-19, 24-26,, 27-28, 30-31, 37-29, 40-43, 48, 54-56, 57, 58-59, 60-61 and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,295,261 issued to Simonetti in view of US Patent No. 5,539,922 issued to Wang.

With respect to claim 1, Simonetti teaches one or more computer-readable media (storage medium includes disks and tapes: col. 1, lines 64-67); and

a hierarchical tree structure resident on the media and comprising multiple nodes (a hierarchical tree structure includes a plurality of nodes containing the attribute of country, states, counties, cities: col. 4, lines 6-34 and lines 65-67 and col. 5, lines 1-20).

Simonetti teaches computer readable storages including disks and tapes and a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities. Simonetti does not clearly teach each of which represent geographical divisions of the Earth, individual nodes comprising an entity identification (EID), that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the

teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claims 2-19, Simonetti teaches one or more networks; wherein the nodes comprise political or natural entities, wherein the political or natural entities comprises one or more of the following: continents, countries, oceans, states, counties and cities; wherein the nodes comprise infrastructure entities; one or more of the following: postal codes, area codes and time zones; public places and non-physical entities (storing geographical information database: col. 4, lines 6-14; see abstract, col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28); wherein one of the attributes comprises a name attribute; a neutral ground truth name attribute; wherein one of the attributes comprises a geographic attribute; a latitude/longitude attribute; a relative importance index; a contextual parent attribute; a source attribute; a start/end dates attribute; a modification date attribute and a status attribute (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13,

Art Unit: 2162

lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 24, Simonetti teaches one or more computer-readable media (storage medium includes disks and tapes: col. 1, lines 64-67); and

a first hierarchical tree structure having multiple nodes associated with a first context (the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach at least one-second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one second hierarchical tree structure being linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are

Art Unit: 2162

unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claims 25-26, Simonetti teaches a system as discussed in claim 24.

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach a location context and geographical divisions of Earth.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of location and geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claims 27-27 and 30-31, Simonetti teaches wherein the first and second contexts comprise a location context wherein the nodes of the first hierarchical tree structure comprise geographical divisions of the Earth; wherein the nodes of the at least one second hierarchical tree structure comprise physical and/or logical entities; wherein the first and the at least one second hierarchical tree structures comprise a plurality of attributes, two of which comprising: an identification that is unique to a node; and information that pertains to the tree with which the node is associated ; one or more goods or services associated with one or more of the nodes of the at least one second



Art Unit: 2162

hierarchical tree structure and wherein the first hierarchical tree structure to comprises a standardized view of the Earth, and the at least one second hierarchical tree structure comprises an organization-specific view of at least a portion of the Earth, the organization-specific view comprising a physical/logical entity that links into specific portions of the Earth (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 37, Simonetti teaches accessing first and one or more second hierarchical tree structures that are resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context (storage medium includes disks and tapes: col. 1, lines 64-67 and the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58); and

traversing multiple nodes of at least of the tree structures to derive a context (navigating and searching the tree: col. 5, lines 1-20, col. 7, lines 51-58 and col. 8, lines 1-26).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach at least one-second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one

Art Unit: 2162

second hierarchical tree structure being linked with one node on the: first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of

Art Unit: 2162

modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claims 38-39, Simonetti teaches a computer-implemented method as discussed in claim 37.

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach a location context and geographical divisions of Earth.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of location and geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the

Art Unit: 2162

purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claims 40-43, Simonetti wherein the traversing derives a location context; wherein the nodes of the first hierarchical tree comprise geographical divisions of the Earth; wherein the nodes of the one or more second hierarchical tree comprise physical and/or logical entities; wherein the traversing comprises traversing at least one node on each tree to derive the context; wherein the context comprises a location and wherein the first and one or more second hierarchical tree structures comprise at least one node pair 14 that is linked (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs, 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

With respect to claim 48, Simonetti teaches access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure; and traverse at least one node of each tree structure to derive a location context (storage medium includes disks and tapes: col. 1, lines 64-67 and the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58); and

Art Unit: 2162

traversing multiple nodes of at least of the tree structures to derive a context (navigating and searching the tree: col. 5, lines 1-20, col. 7, lines 51-58 and col. 8, lines 1-26).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach at least one-second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one second hierarchical tree structure being linked with one node on the: first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for

Art Unit: 2162

a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 49, Simonetti teaches the one or more computer-readable media as discussed in claim 48.

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach a location context.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are

unique ID to the node (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of location and geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 54, Simonetti teaches defining a hierarchical tree structure comprising multiple nodes that each can define a physical or logical entity (storage medium includes disks and tapes: col. 1, lines 64-67 and the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58); and

traversing the multiple nodes (navigating and searching the tree: col. 5, lines 1-20, col. 7, lines 51-58 and col. 8, lines 1-26).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach said multiple nodes comprising parent and children nodes, at

Art Unit: 2162

least some of the parent nodes and their associated children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's col. 14, lines 28-40).



With respect to claims 55-56, Simonetti teaches a computer-implemented method as discussed in claim 54.

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach a location context and geographical divisions of Earth.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as, in the level of country, MEXICO, USA and CANADA, these are unique ID to the node (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of location and geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 57, Simonetti teaches defining a hierarchical tree structure comprising multiple nodes that each can define a physical or logical entity (storage medium includes disks and tapes: col. 1, lines 64-67 and the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58); and

traversing the multiple nodes (navigating and searching the tree: col. 5, lines 1-20, col. 7, lines 51-58 and col. 8, lines 1-26).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 58, Simonetti teaches receiving input from a source that specifies information pertaining to physical and/or logical entities; processing the information to define a hierarchical tree structure having a context (col. 9, lines 27-52 and col. 9, lines 1-48; also storage medium includes disks and tapes: col. 1, lines 64-67 and the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58);

linking at least one of the multiple nodes to a node of another tree structure having a context and multiple nodes that represent physical and/or logical entities, and the tree structure being configured for traversal in a manner that enables context to be derived from one or more of the nodes (navigating and searching the tree: col. 5, lines 1-20, col. 7, lines 51-58 and col. 8, lines 1-26).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the

Art Unit: 2162

associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 59, Simonetti teaches a computer-implemented method as discussed in claim 58.

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach a location context.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of location and geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1

Art Unit: 2162

& 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

Claim 60 is essentially the same as claim 58 except that it is directed to a computer-readable media rather than a method, and is rejected for the same reason as applied to the claim 58 hereinabove.

With respect to claim 61, Simonetti teaches one or more computer-readable media (storage medium includes disks and tapes: col. 1, lines 64-67); and

a hierarchical tree structure resident on the media and comprising multiple nodes (a hierarchical tree structure includes a plurality of nodes containing the attribute of country, states, counties, cities: col. 4, lines 6-34 and lines 65-67 and col. 5, lines 1-20).

Simonetti teaches computer readable storages including disks and tapes and a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities. Simonetti does not clearly teach each of which represent geographical divisions of the Earth, individual nodes comprising an entity identification (EID), that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity

Art Unit: 2162

identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 62, Simonetti teaches one or more computer-readable media (storage medium includes disks and tapes: col. 1, lines 64-67); and

a first hierarchical tree structure having multiple nodes associated with a is first context (the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of

Art Unit: 2162

country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach at least one-second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one second hierarchical tree structure being linked with one node on the: first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to



Art Unit: 2162

services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 63, Simonetti teaches accessing first and one or more second hierarchical tree structures that are resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context (storage medium includes disks and tapes: col. 1, lines 64-67 and the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58); and

traversing multiple nodes of at least of the tree structures to derive a context (navigating and searching the tree: col. 5, lines 1-20, col. 7, lines 51-58 and col. 8, lines 1-26).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach at least one-second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one second hierarchical tree structure being linked with one node on the: first hierarchical tree structure by a link that is configured to enable a complete context to be derived

from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

With respect to claim 64, Simonetti teaches access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure; and traverse at least one node of each tree structure to derive a location context (storage medium includes disks and tapes: col. 1, lines 64-67 and the first type of tree for hierarchically organized data with adjacent links list: col. 7, lines 51-58); and

traversing multiple nodes of at least of the tree structures to derive a context (navigating and searching the tree: col. 5, lines 1-20, col. 7, lines 51-58 and col. 8, lines 1-26).

Simonetti teaches computer readable storages including disks and tapes, type of data storing in hierarchical tree data structures. a hierarchical tree structure storing in the storage medium containing a plurality of nodes containing the information of country, states, counties and cities and a second tree (col. 8, lines 52-67). Simonetti does not clearly teach at least one-second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one second hierarchical tree structure being linked with one node on the: first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes

Art Unit: 2162

comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node.

However, Wang teaches a hierarchical tree structure representing geographical divisions of the Earth (figs. 1 & 5), each individual nodes representing an entity identification, such as in the level of country, MEXICO, USA and CANADA, these are unique ID to the node. And in the level of states, the services for its telephone area code services, thus the parent and children nodes having a unique nodes or EID for the associated node (col. 8, lines 15-58 and col. 10, lines 3-50) and a plurality of nodes for a second tree having information of port (FIG. 22, Col. 2, lines 1-10, col. 18, lines 50-67 and col. 23, lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti with the teachings of Wang. One having ordinary skill in the art would have found it motivated to utilize the use of a second hierarchical tree structure representing geographical division of the Earth having a plurality of nodes by which the attributes can be assigned to services for associated each individual nodes having EIDs that are unique for the associated node as disclosed (Wang's figs. 1 & 5 and col. 8, lines 15-58 and col. 10, lines 3-50), into the system of Simonetti for the purpose of reducing the amount of modifications, the size of memory, thereby, providing the systems having various coverage areas more efficient (Wang's' col. 14, lines 28-40).

Art Unit: 2162

6. Claims 20-23, 29, 32-36, 44-47 and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,295,261 issued to Simonetti in view of US Patent No. 5,539,922 issued to Wang and further in view of US Patent No. 6,151,601 issued to Papierniak et al. (hereinafter Papierniak).

With respect to claims 20-23, Simonetti in view of Wang teaches a system as discussed in claim 1.

Simonetti and Wang disclose substantially the invention as claimed.

Simonetti and Wang do not teach wherein the tree structure does not include any nodal associations with businesses or services; wherein the computer-readable media is embodied on a mobile computing device; wherein the computer-readable media is embodied on a handheld mobile computing device and wherein the computer-readable media is accessible to a mobile computing device via the Internet.

However, Papierniak teaches business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of Wang with the teachings of Papierniak by incorporating the use of a system having multiple hierarchical tree structures for storing data. The motivation being to improve the tree structure without the need to generate and store search table for each search value.

With respect to claims 29, and 32-36, Simonetti in view of Wang teaches a system as discussed in claim 24.

Simonetti and Wang disclose substantially the invention as claimed.

Simonetti and Wang do not teach wherein the information comprises a universal resource locator (URL); wherein the organization-specific view has no context outside of the organization; wherein the computer-readable media is embodied on a mobile computing device; wherein the computer-readable media is embodied on a desktop device; wherein the computer-readable media is embodied a handheld mobile computing device; wherein the computer-readable media is accessible to a computing device via the Internet.

However, Papierniak teaches URL, wireless/mobile and Internet (col. 12, lines 61-67 and col. 13, lines 1-8; abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61; col. 7, lines 55-67 and col. 8, lines 1-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of Wang with the teachings of Papierniak by incorporating the use of a system having multiple hierarchical tree structures for storing data. The motivation being to improve the tree structure without the need to generate and store search table for each search value.

With respect to claims 44-47, Simonetti in view of Wang teaches a system as discussed in claim 37.

Simonetti and Wang disclose substantially the invention as claimed.

Simonetti and Wang do not teach wherein at least one of the nodes of the one or more second hierarchical tree structures has a good or a service associated with it, and

Art Unit: 2162

wherein the traversing comprises locating a good or a service associated with a node and consuming the good or service; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing tree structures that are locally available on a mobile computing device; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing at least one of the trees via a network medium; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing at least one of the trees via the Internet.

However, Papierniak teaches business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of Wang with the teachings of Papierniak by incorporating the use of a system having multiple hierarchical tree structures for storing data. The motivation being to improve the tree structure without the need to generate and store search table for each search value.

With respect to claims 50-53, Simonetti in view of Wang teaches a system as discussed in claim 48.

Simonetti and Wang disclose substantially the invention as claimed.

Simonetti and Wang do not teach wherein the computing device automatically determines its location context; wherein the computing device is a handheld computing device; wherein the computing device is a mobile computing device; wherein the

Art Unit: 2162

computing device is a desktop device; and wherein the computing device is a handheld computing device that automatically determines its location context.

However, Papierniak teaches business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Simonetti in view of Wang with the teachings of Papierniak by incorporating the use of a system having multiple hierarchical tree structures for storing data. The motivation being to improve the tree structure without the need to generate and store search table for each search value.




**Contact Information**


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or via E-Mail: ANH.LY@USPTO.GOV or fax to (571) 273-4039. The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107 or **Primary Examiner Jean Corrielus (571) 272-4032**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or faxed to: **Central Fax Center (571) 273-8300**

ANH LY   
OCT. 12<sup>th</sup>, 2005

  
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